Comparative study of Hemodynamic changes in patients undergoing diagnostic bronchoscopy using Remifentanil – Propofol Versus Remifentanil – Ketamine

Abstract

Background and objectives: Fiberoptic bronchoscopy is an essential common diagnostic method for lung diseases. The procedure is an invasive procedure and enough sedation is required. Patients who are candidate for bronchoscopy are involved with respiratory problems. Airway manipulation in such patients may result in exacerbation of respiratory problems. To prevent respiratory complication we have to induce light sedation or partial unconsciousness. in this study the effect of two groups of drugs: Remifentanil-Propofol (RP) & Remifentanil-Ketamine (RK) for sedation of patients undergoing diagnostic bronchoscopy was assessed.

Methods: This double blind clinical trial was performed on 76 pulmonary patients with class 1, 2&3 ASA, scheduled for diagnostic bronchoscopy under intravenously sedation. The patients accidentally divided to 2 groups. One of the groups received single dose of propofol & infusion of remifentanil intravenously, and another groups received single dose of ketamine & infusion of remifentanil intravenously. Hemodynamic parameters of patients during the procedure were recorded. Consciousness state of patients, satisfaction scores of bronchoscopist & patients were noted at the end of the procedure. Taken results were statistically analysed by spss software, chi square, independent t-test & repeated measures.

Results: Though, the mean of heart rate & blood pressure in the patients of RK group was greater than RP group clinically, but there was no significant difference between two groups statistically (Pvalue>0.05). consciousness state, satisfaction scores of bronchoscopist & patients between groups were not significant(pvalue>0.05) too.

Conclusion: Blood pressure stability in patients group RP was considerable clinically but was not significant statistically. Use of the least dose of drugs can be one of the causes. Then further similar researches with different dose of drugs & more samples recommended.

Key words: Remifentanil, Propofol, Ketamine, Bronchoscopy, Intravenously sedation